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ANOMOEOMUNIDA, A NEW GENUS PROPOSED FOR *PHYLLADIORHYNCHUS CARIBENSIS* MAYO, 1972 (CRUSTACEA: DECAPODA: GALATHEIDAE)

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Abstract.—*Anomoeomunida,* a new genus, is established for *Phylladiorhynchus caribensis* Mayo, 1972, and is differentiated from *Phylladiorhynchus* Baba, 1969, by the presence of male pleopods on the first abdominal segment, the rostrum bearing a dorsal ridge in midline, the single spine at the distolateral angle of the antennular basal segment, and the lack of ventral spines on the sickle-shaped dactyli of the walking legs. It is also distinguished from *Pleuroncodes* Stimpson, 1860, by the pterygostomial flap not visible from a dorsal view and the dactyli of the walking legs sickle-shaped without ventral spines.

In a previous paper, Baba (1991:484) suggested that *Phylladiorhynchus caribensis* Mayo, 1972 from the Caribbean Sea be removed from that genus. It was suggested that the species was close to *Pleuroncodes* Stimpson, 1860, from the eastern Pacific but that a new genus was needed. A more thorough comparison now allows a new genus, *Anomoeomunida,* to be proposed to include this species, and be discussed.

Anomoeomunida, new genus

Diagnosis.—Rostrum relatively narrow, dorsally with rounded low ridge, with well-developed supraocular tooth on each side. Lateral limit of orbit with distinct angle in dorsal view. Basal segment of antennule with 3 small terminal spines, mesial one not bifid. Third thoracic sternite with 2 convexities on anterior margin, posterior margin contiguous to following sternite on entire width. Walking legs lacking spines other than terminals on merus and carpus; dactylus sickle-shaped, lacking ventral spines. Male pleopods present on first and second abdominal somites.

Gender.—Feminine.

Type species.—*Phylladiorhynchus caribensis* Mayo, 1972.

Etymology.—From the Greek *anomoios* (unlike, dissimilar) plus *Munida,* suggesting that the genus is different from *Munida.*

Remarks.—Mayo (1972:526) noted that *Phylladiorhynchus caribensis* from 11–38 m in the Caribbean Sea was intermediate between *Galathea* Fabricius, 1793, and *Munida* Leach, 1820, and placed it in *Phylladiorhynchus* Baba, 1969. She stressed the rostral shape in species of the genus and amended the generic diagnosis to allow for the lack of spination on the walking legs, and for three rather than four or five terminal spines (counting the double mesial terminal spines as two) on the basal antennular segment. Lewinsohn (1982:298) suggested that this western Atlantic form should eventually be placed in a new genus. Following the examination of the type material deposited at the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM 140187–8) of *P. caribensis,* I am inclined to believe that Lewinsohn was correct.

Anomoeomunida caribensis has most of the characteristics of *Munida* in the general striation of the carapace and abdomen, and shapes of the antennular basal segment, antenna and sternum (the anterior portion in particular). But the lateral limit of the orbit

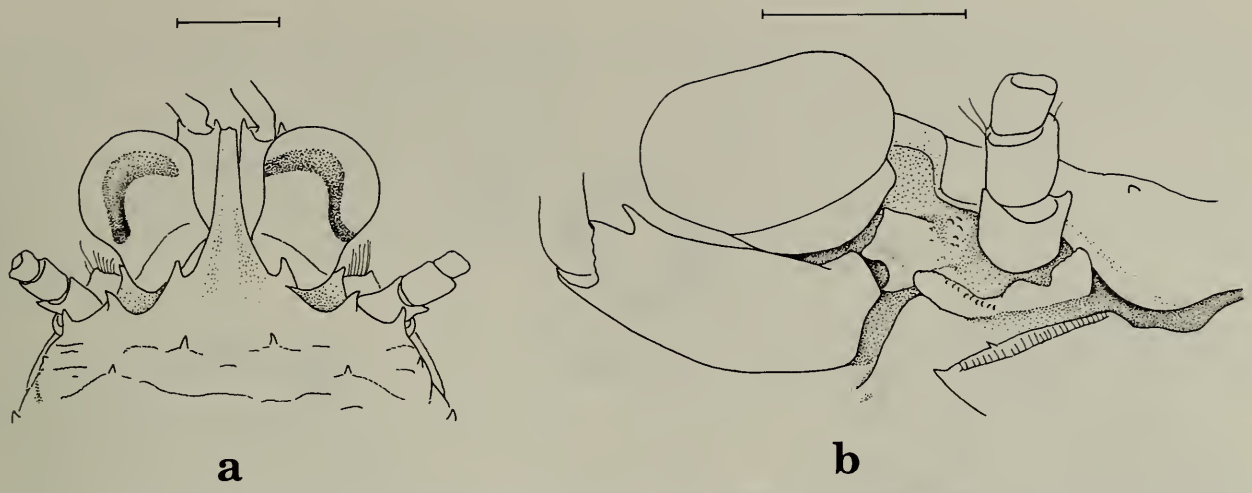

Fig. 1. Anterior part of carapace in *Anomoeomunida caribensis* [= *Phylladiorhynchus caribensis* Mayo, 1972]: a, male holotype (USNM 140187), dorsal view, right supraocular spine partly broken; b, same, left lateral view. Scales = 1 mm.

angled in dorsal view, and the walking legs with smooth, sickle-shaped dactyli and meri without dorsal spines, differentiate it from other species of *Munida*.

The unique morphology of the walking legs also separates *A. caribensis* from species of *Phylladiorhynchus*. The rostrum in species of *Phylladiorhynchus* is broadly triangular, dorsally excavated, and lacks the dorsal ridge seen in the Caribbean species. Mayo (1972:523) noted that the lateral limit of the orbit in *P. caribensis* bears a small spine. Examination of the type material discloses that this spine can be discernible in dorsal view (Fig. 1a), but barely so in lateral view (Fig. 1b); in *Phylladiorhynchus,* the lateral orbital angle is sharply produced (Baba 1991: fig. 4). The distomesial margin of the antennular basal segment in *Phylladiorhynchus* bears double spines (see Miyake & Baba 1965:fig. 6A for *P. ikedai*; Miyake & Baba 1967: fig. 6b for *P. pusillus*; Tirmizi & Javed 1980:fig. 2D for *P. bengalensis*; Lewinsohn 1982:fig. 1e for *P. integrirostris*), while that of *P. caribensis* bears a single thin small spine (Mayo 1972:525, fig. 1e). The distoventral margin of the first (basal) segment of the antennal peduncle is strongly produced into an anterior prolongation in *Phylladiorhynchus* (see Miyake & Baba 1965:fig. 4B for *P. ikedai*; Miyake & Baba 1967:fig. 6c for *P. pusillus*; Tirmizi & Javed 1980: fig. 2E for *P. bengalensis*; Lewinsohn 1982: fig. 1f for *P. integrirostris*), while it is a thin scallop with a very small median process in *P. caribensis* (Fig. 1b). The male pleopods on the first abdominal somite are absent from *Phylladiorhynchus,* but present on the Caribbean species. At my request, F. A. Chace, Jr. of the Smithsonian Institution examined the types of *P. caribensis*; he wrote to me that "there definitely is a pair of apparently uniramous pleopods inserted laterally on the first abdominal somite but they are soft and flexible, not stiffened to perform as gonopods like those in lobsters and crabs," (Chace, in litt.).

Anomoeomunida is also related to the eastern Pacific *Pleuroncodes* Stimpson, 1860, which contains two species: *P. monodon* (H. Milne Edwards, 1837) and *P. planipes* Stimpson, 1860. Comparative material from the Smithsonian Institution of these two species was examined: *P. planipes*—4 ♂ (12.3–13.3 mm in carapace length excluding rostral spine), 1 ovig. ♀ (14.0 mm), USNM 81336, pelagic at 20–40 miles off shore, southern Lower California (Magdalena Bay), Mar 1940, coll. & id. E. F. Ricketts; *P. monodon*—2 ♂ (13.7, 16.3 mm), 2 ♀ (14.9, 17.3 mm), USNM 65710, "Albatross" Sta. 3396, off Panama, 07°32'N, 78°36'W, 474

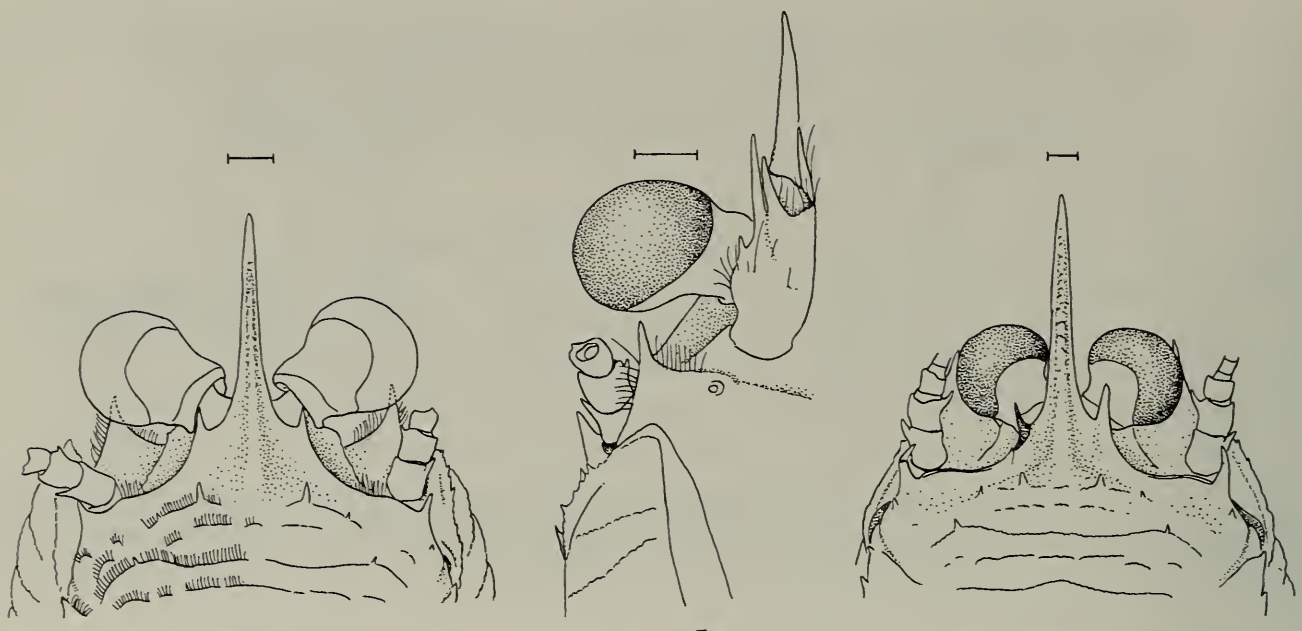

Fig. 2. Anterior part of carapace: a, *Pleuroncodes planipes* Stimpson, male (USNM 81336), dorsal view; b, same, ventral view; c, *Pleuroncodes monodon* (H. Milne Edwards), female (USNM 65710), dorsal view. Scales = 1 mm.

m, 11 Mar 1891, id. J. E. Benedict [these specimens were reported by Faxon (1895: 72) as *P. monodon*?].

Haig (1955:34) suggested that *P. monodon* and *P. planipes* may be identical but this seems not to be so. The specimens of *P. planipes* examined have fringes of long setae on the pereopods, especially on the walking legs which suggests a pelagic life as mentioned by Faxon (1895:72), whereas those of *P. monodon* do not; also the spination of the pereopods is less pronounced in *P. planipes.* In *P. planipes,* the third thoracic sternite is relatively wide, with its lateral margins convergent posteriorly, while in *P. monodon* it is narrow, with an acute anterolateral process directed straight forward.

These specimens share the following characteristics: the pterygostomial flap (or linea anomurica) is largely visible from a dorsal view (see Faxon 1895:pl. 15: fig. 3; Haig 1955:fig. 7); the antennular basal segment bears three prominent terminal spines (mesial, lateral, and dorsolateral) and an additional small spine proximal to the dorsolateral one (Fig. 2b), as typical in *Munida*; the basal antennal segment is perfectly fused with the orbit and bears a well-developed, basally wide ventromesial spine (Fig. 2a–c); the rostrum is spiniform and dorsally ridged on the midline (Fig. 2a, c); male gonopods are present on the first and second abdominal segments; the dactyli of the walking legs bear a row of distinct but fine ventral spines.

Of these characteristics, *Anomoeomunida* and most of the known species of *Munida* share the presence of two pairs of gonopods and the dorsally ridged spiniform rostrum. The basal segment of the antennal peduncle is fused with the orbit in both *Pleuroncodes* and *Anomoeomunida,* and even in *Munida speciosa* von Martens, 1878.

Pleuroncodes differs most obviously from *Anomoeomunida* in the pterygostomial flap largely visible in dorsal view, the dactyli of the walking legs bearing a row of small ventral spines, and the lateral limit of the orbit not angled.

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